

Appl. No. : 10/658,307  
Filed : September 9, 2003

AMENDMENTS TO THE SPECIFICATION

Please delete the paragraph at page 4, lines 20-24 and replace it with the following new paragraph:

A paper by R. Twieg Tweig et al. (Polymeric Materials Science and Engineer., 1996, 75, 165) discusses a polysiloxane polymer that has carbazole-type side chains to provide charge transport capability and nitro-diaminoaniline chromophore to provide non-linear optical capability. The material show low diffraction efficiency efficiency 34% (8 kV), although there are no description about descriptions of the response time.

Please delete the paragraph at page 16, lines 4-5 and replace it with the following new paragraph:

In a preferred embodiment, a chromophore is comprised of a polymerstructure selected from the group consisting of the structuresformulae (v), (vi), (vii), and (viii):

Please delete the paragraph at page 19, lines 8-11 and replace it with the following new paragraph:

wherein R<sub>1</sub> and R<sub>2</sub> are selected from the group consisting of a linear alkyl group with up to 10 carbons, a branched alkyl group with up to 10 carbons, and an aromatic group with up to 10 carbons; R<sub>1</sub> and R<sub>2</sub> can be either same or different; wherein B is a group selected from the group consisting of the structures (viii)-(ix), and (x) and (xi);

Please delete the paragraph at page 22, lines 8-11 and replace it with the following new paragraph:

wherein R<sub>1</sub> and R<sub>2</sub> are selected from the group consisting of a linear alkyl group with up to 10 carbons, a branched alkyl group with up to 10 carbons, and an aromatic group with up to 10 carbons; R<sub>1</sub> and R<sub>2</sub> can be either same or different; wherein ZG is a group selected from the group consisting of the above structures (ix), (x), and (xi);

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Please delete the paragraph beginning at page 27, line 23 and replace it with the following new paragraph:

As detail examples, ethyl ~~catbazolecarbazole~~, 4-(N,N-diphenylamino)-phenylpropyl ~~acetate~~acetate; 4-(N,N-diphenylamino)-phenylmethoxy ~~acetate~~acetate; N-(acetoxypropylphenyl)-N, N', N'-triphenyl-(1,1'-biphenyl)-4,4'-diamine; N-(acetoxypropylphenyl)-N'-phenyl-N, N'-di(4-methylphenyl)-(1,1'-biphenyl)-4,4'-diamine; and N-(acetoxypropylphenyl)- N'-phenyl- N, N'-di(4-butoxyphenyl)-(1,1'-biphenyl)-4,4'-diamine. Such compounds can be used singly or in mixtures of two or more monomers. Also, unpolymerized monomers can be low molecular weight hole transfer compounds, for example 4-(N,N-diphenylamino)-phenylpropyl (meth)acrylate; N-[(meth)acroyloxypropylphenyl]-N, N', N'-triphenyl-(1,1'-biphenyl)-4,4'-diamine; N-[(meth)acroyloxypropylphenyl]-N'-phenyl-N, N'-di(4-methylphenyl)-(1,1'-biphenyl)-4,4'-diamine; and N-[(meth)acroyloxypropylphenyl]- N'-phenyl- N, N'-di(4-butoxyphenyl)-(1,1'-biphenyl)-4,4'-diamine. Such monomers can be used singly or in mixtures of two or more monomers.